

REMARKS

This Amendment with Request for Reconsideration with Amendment is filed in response to a Non-Final Office Action of March 11 2009 in which claims 1-5 and 28-37 were rejected.

Claims 1-5 are amended, claims 28-37 are cancelled and new claims 38-54 are drafted, as submitted herein, to clarify the subject matter of the invention and correct for small errors without introducing a new matter, wherein all amendments are fully supported by the specification, e.g., see Paragraphs 0039-0047 of the Patent Publication Number US 2007/0127417 of the present patent application.

Claim Rejections - 35 USC § 102

Examiner's Position:

Claims 21, 5, 28, 32, 33 and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Whitehill et al. (US publication # 2002/0191573).

Applicant's Response:

The applicant is of the opinion that Examiner's arguments are not accurate. The Examiner's arguments are analyzed based on MPEP guidelines which are stated in the MPEP Paragraph 2131 as follows:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), MPEP 2131. Further, "the identical invention must be shown in

as complete details as is contained in the . . . claim", *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)."

In regard to claims 1 (and other independent claims 28 and 33), first, the concept of a "stack" is defined differently in the present patent application (e.g., see Figure 2) than in the reference of Whitehill et al. (see Figures 1 and 4) quoted by the Examiner.

In the present patent application published as US 2007/0127417 on June 7 2007, the "stack" is defined as a stack of modules (see Figure 2 and paragraphs 0031 and 0032 in the publication US 2007/0127417). **Each such module** "contains the **hardware and software** required to implement its designated function" (see Paragraph 0031 lines 4-5 of the publication of the present patent application US 2007/0127417). This definition is different than "protocol stacks" related primarily to **software** operation in a more conventional sense as shown in figures 1 and 4 of Whitehill et al. For example, in regard to Figure 1, Whitehill et al. stated in Paragraph 0007, lines 3-5 that "The protocol stack 10 is implemented as a **five-layer software stack**, referenced from the bottom layer to the top." Figure 4 of Whitehill et al. has a similar structure as Figure 1 of Whitehill et al. **including layers 12, 14, 16 and 18** of Figure 1 but containing additional protocol layers (including NBR algorithm 34).

Moreover, Whitehill et al., called block 34, referred to by the Examiner in the present OA on page 3, as a "Neighbor Discovery (NBR) **algorithm 34** (e.g., see Paragraph 0065 line 3 of Whitehill et al.). Apparently, the term "**algorithm**" implies that NBR 34 does not contain

a hardware component which is different than a stack wireless module 214 or 215 (containing hardware and software as argued herein) shown in figure 2 of the present patent application.

Thus, structurally, module stacks recited in claim 1 (and other claims of the present patent application) disclosed in the specification of the present patent application (e.g., see Figure 2 and paragraphs 0031-0032 in the US 2007/0127417) are different than "protocol stacks" (e.g., including NBR algorithm 34) disclosed by Whitehill et al., as explained herein.

Furthermore, the functionality of the algorithm 34 of Whitehill et al., quoted by the Examiner, is different than performing "automatic auto-discovery" as recited in claim 1 of the present patent application. Indeed, claim 1 (amended as submitted herein, but having similar scope as the original claim) of the present patent application states that "wherein performing automatic self-discovery includes: "each of said wireless modules is configured to perform automatic self-discovery by automatically determining a position of said each of the wireless modules within the stack, by automatically identifying other wireless modules in the stack, and by automatically determining whether said each of said wireless modules is configured to communicate with said external wired network via a wired or wireless communication link."

Detailed description of the automatic self-discovery is provided in paragraphs 0044 through 0047 and beyond of the present patent application in the US Publication US 2007/0127417.

On the other hand, the function of the NBR (neighbor discovery) algorithm 34 of Whitehill et al. is quite different, contrary to what is alleged by the Examiner. For example, in paragraph 0065, Whitehill et al. provided functionality of the algorithm 34 in detail as follows:

"The NBR algorithm serves two purposes: rapid discovery of the infrastructure and neighborhood size maintenance.

The NBR algorithm 34 uses a solicitation message to discover pieces of infrastructure that are used to initialize the device and connect it to the rest of the world, such as Internet, PSTN, other cellular networks, and so on. The NBR algorithm 34 also sends out beacons at a slow rate to probe the neighborhood. By maintaining a reasonable size neighborhood, maximum geographical reuse can be obtained. The NBR (neighbor discovery) algorithm 34 attempts to maintain knowledge about the neighborhood consisting of less than twenty nodes such that no one at the fingers is denied service". In paragraph 0066 Whitehill et al. further stated: "The NBR algorithm 34 uses the received power to maintain knowledge about the neighborhood in terms of neighbor identities, received power, data rates to destinations, and limited connectivity." This description of Whitehill et al. clearly show that Whitehill et al. do not infringe the process of self-discovery recited in claim 1 (and other independent claims) of the present application as quoted above.

Thus, the functionality of the NBR algorithm 34 disclosed by Whitehill et al. is different than the automatic self-discovery disclosed in the embodiments of the present patent application. Indeed, none of the three steps 1) automatically determining a position of the

wireless module within the stack; 2) automatically identifying a position of the modules in the stack; and, 3) automatically determining whether the node is coupled to communicate with the external, wired, computer network via wired or wireless communication link, as recited in claim 1 of the present patent application is disclosed by Whitehill et al.

The Examiner's arguments are artificial, and not convincing and generally are not supported by the disclosure of Whitehill et al. For example, on page 3 of the Office Action March 11 2009, the Examiner stated, that "since NBR works with other layers in the stack such as the ATP 32 layer next to it and the AHR 38 layer above it, NBR (neighbor discovery) 34 must know its position within the stack to receive information from adjacent layers".

The above statement does not read onto claim 1 and is irrelevant in reference to claim 1 of the present patent application. First, the layer structures disclosed in the present application and in Whitehill et al., as was pointed out above, are completely different (the only commonality is in their designation as "layers"), therefore there is no equivalency between the software layers ATP, AHR and NBR 34 of Whitehill et al. quoted by the Examiner and, e.g., one or more wireless modules or antenna modules (definitely having a hardware component) comprising a module stack as disclosed in claim 1 and in the specification of the present patent applicant (e.g., see figure 2). Moreover, Whitehill et al. do not specifically talk about "determining" position of a layer in the stack, and therefore, the statement "NBR 34 must know its position within the stack" is not the same as

"determining the position" as recited in claim 1 of the present patent application. But even more importantly, Whitehill et al. do not need to determine said "position" of the NBR 34 within the layer structure, because it does not have such an importance it has in the present patent application, ***wherein the position of the layer in the stack relative to other layers may determines its role as explained in Paragraphs 0040-0043 of the present patent application.*** (e.g., to determine which wireless module 215 or 216 would be a backhaul, etc.). , Whitehill et al. do not discuss that at all.

Second, the NBR (neighbor discovery) module 34 of Whitehill et al. is for **rapid discovery of the infrastructure and neighborhood size maintenance**, as disclosed in Paragraphs of 0065-0067 of Whitehill et al. but did not talk or even hinted about determining whether the node is coupled to communicate with the external, wired, computer network **via wired or wireless communication link**, contrary to what is alleged by the Examiner.

Therefore, amended claim 1 and new independent claims 41 and 48 are not anticipated by Whitehill et al. under 35 U.S.C. 102(e). All dependent claims are not anticipated by Whitehill et al. under 35 U.S.C. 102(e) as being dependent on novel claims 1, 41 and 48 as argued herein. Additional arguments in regard to unique limitations of the corresponding dependent claims can be presented if requested by the Office.

Claim Rejections - 35 USC § 103

Examiner's Position:

Claims 2, 29 and 34 are rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill et al. (US publication # 2002/0191573) in view of Borscheing (US Patent No. 7,009,966).

Claims 3, 30 and 35 are rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill et al. (US publication # 2002/0191573) in view of Koppol (US Publication No. 2003/0123457).

Claims 4, 31 and 36 are rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill et al. (US publication # 2002/0191573) in view of Filipovic (US Patent No. 7,106,816).

Applicant's Response:

The novelty and no-obviousness of all rejected claims under 35 U.S.C. 103(a) is provided by their dependence on the novel and non-obvious independent claims 1, 41 and 48, submitted herein.


More arguments can be presented by the applicant about unique limitations of the corresponding dependent claims not disclosed by references quoted by the Examiner, as well as in regard to justification (motivation) for combining references and their compatibility (i.e., their combination is teaching away from the present invention), if requested by the Office, and as required in MPEP Paragraph 2143 and Case Law.

CONCLUSION

The objections and rejections of the Non-final Office Action of March 11 2009 having been obviated or shown to be inapplicable, withdrawal thereof is requested and passage of all claims to issue is earnestly solicited.

Respectfully submitted,
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